

CLAIMS

1. Device (100, 200) for use in the detection of the power that passes through an electronic device, comprising means (110) for division of the power that enters the device into a first and a second branch, each branch having a predetermined proportion of the total input power with a predetermined phase difference between the signals that go into the branches, further comprising a first power detector (140) for the first branch, a second power detector (150) for the second branch, and means (130) for summation of the power in the two branches, characterized in that the first and the second power detectors are calibrated for different sub-ranges of a dynamic range within which it is desired to carry out the power detection, and in that the means (130) for summation can be controlled with regard to which branch and thereby to which power detector (140, 150) the sum of the power is diverted, and in that the device comprises, in at least one of its branches, means (120) for said control of the summator.
2. Device (100,200) according to claim 1, in which device the sub-ranges for which the first and the second power detectors (140,150) are calibrated are overlapping.
3. Device (100, 200) according to Claim 1 or 2, in which the means (110) for division of the power and the means (130) for summation both comprise a summator.
4. Device (100,200) according to any of the previous claims, in which at least one of the means (110) for division of the power and the means (130) for summation are designed in MMIC-technology.
5. Device according to any pf the previous claims, in which the means for controlling the summator comprises a controllable phase shifter (120).

6. Device according to any one of the preceding claims, further comprising means for amplification (160, 170) in each branch of the device.
7. Device according to any one of the preceding claims, comprising means for controlling the means for summation in both the first branch and the second branch.
8. Device according to any one of the preceding claims, in which the electronic device for which the invention is used is a device for the transmission of electromagnetic energy.
9. Device according to any one of the Claims 1-7, in which the electronic device for which the invention is used is a device for the reception of electromagnetic energy.
10. Method for use for the detection of the power that passes through an electronic device, comprising division (110) of the power that enters the device into a first and a second branch, each branch being given a predetermined proportion of the total input power with a predetermined phase difference between the signals that go into the branches, further comprising user-defined detection (140) of the power in the first branch and summation (130) of the power in the two branches, user-defined detection (150) of the power in the second branch, characterized in that the user-defined detection in the first and in the second branch are calibrated for different sub-ranges of a dynamic range within which it is desired to carry out the detection according to the method, and in that the summation is controlled with regard to which branch and thereby to which detection (140, 150) the sum of the power is diverted, and in that said control (120) of the summator is carried out via at least one of the branches.

11. The method of claim 10, according to which the sum of the power is diverted to the user-defined detection whithin whose sub-range the power can be detected.
- 5    12. Method according to any of claims 9-11, in which the different sub-ranges of the user-defined detection in the first and in the second branch are overlapping.
- 10    13. Method according to any of claims 9-12, according to which the division (110) of the power and the summation (130) of the power are carried out by means of a summator.
- 15    14. Method according to any of claims 9-13, in which the control of the summator comprises phase shifting (120) of the signal in one of the branches.
- 20    15. Method according to any one of Claims 9-14, further comprising amplification (160, 170) of the signals in each branch of the device.
- 25    16. Method according to any one of Claims 9-15, further comprising control (120) of the summator via both the first branch and the second branch.
17. Method according to any one of Claims 9-16, in which the electronic device for which the method is used is a device for the transmission of electromagnetic energy.
- 25    18. Method according to any one of Claims 9-16, in which the electronic device for which the method is used is a device for the reception of electromagnetic energy.